

Toyota – Exhibit K2

EXHIBIT K2 - U.S. PATENT 12,039,243
Infringement Claim Chart

Upon information and belief, all '243 Accused Instrumentalities use the same or similar structures to implement the features described in the following chart in materially the same way, unless expressly stated otherwise. Accordingly, the described structures, features and corresponding infringement contentions are representative of infringement by all '243 Accused Instrumentalities, including Accused Instrumentalities of the Toyota and Lexus brands. In addition, the exemplary evidence cited herein, while representative of all '243 Accused Instrumentalities, is non-exhaustive, based on publicly available information, and provided for illustrative purposes only. AutoConnect reserves the right to supplement or amend these contentions based on information obtained during discovery, and to rely on additional evidence consistent with the infringement theories set forth in its infringement contentions.

U.S. Patent 12,039,243		Toyota Infringing Activities
Row	Claim 1	
1A	A system, comprising: memory; machine-readable instructions; and	The '243 Accused Instrumentalities include a system comprising a memory and machine-readable instructions. For example, the '243 Accused Instrumentalities contain a memory that stores, for example, machine-readable instructions that, when executed by one or more processors, ¹ perform the steps recited in Rows 1B-1E. A representative Toyota owner manual states that the “system saves data onto the internal memory.” ² Among other things, the memory also enables users to “save multiple user profiles on the vehicle.” ³ A Toyota website states “Through the new multimedia system’s User Profile feature, the driver’s personalized settings and experience, from preferred media or radio station to climate settings in some models, will be retained and accessible when the driver

¹ Any reference to a “processor” in these contentions includes one or more processors operating individually or in combination to perform the specified claim limitation.

² See, e.g., Lexus 2024 RX450h+/RX350 Multimedia Owner’s Manual at 8 (accessed at <https://assets.sia.toyota.com/publications/en/omnav-s/OM48N22U/pdf/OM48N22U.pdf>); 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner’s Manual at 9 (accessed at <https://assets.sia.toyota.com/publications/en/omnav-s/OM0E131U/pdf/OM0E131U.pdf>).

³ See, e.g., <https://www.toyota.com/privacyvts/>; <https://www.youtube.com/watch?v=vunE-OodF50> at 0:27; https://support.toyota.com/s/article/Toyota-App-User-Profi-10737?language=en_US#:~:text=How%20do%20I%20reset%20my,vehicle%20if%20it%20was%20saved.

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		next returns to the vehicle.” ⁴
1B	one or more processors to execute the machine-readable instructions to: receive a request to access a user profile stored at a vehicle, the user profile including one or more preferences associated with functions or settings of the vehicle;	The ’243 Accused Instrumentalities include one or more processors to execute machine-readable instructions. For example, as explained previously, the ’243 Accused Instrumentalities include machine-readable instructions stored in memory that, when executed by a processor, perform the steps recited in Rows 1B-1E. The one or more processors of the ’243 Accused Instrumentalities execute the machine-readable instructions to receive a request to access a user profile stored at a vehicle, the user profile including one or more preferences associated with functions or settings of the vehicle. For example, the ’243 Accused Instrumentalities provide for saving preferences associated with functions or settings of the vehicle as part of a user profile that is stored at the vehicle.⁵ Such settings include, for example, screen display settings, music settings, seat settings, notification settings, and preferred language settings.⁶ The processor receives a request to access a user profile when, for example, it receives input from the vehicle display requesting access to a user profile, it receives a signal from a mobile

⁴ See, e.g., <https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/>; <https://pressroom.lexus.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/>; Lexus 2024 RX450h+/RX350 Multimedia Owner’s Manual at 46; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner’s Manual at 48.

⁵ See, e.g., Lexus 2024 RX450h+/RX350 Multimedia Owner’s Manual at 46-47; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner’s Manual at 48-49; <https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/>; <https://pressroom.lexus.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/>; https://support.toyota.com/s/article/Toyota-App-User-Profile-10737?language=en_US#:~:text=How%20do%20I%20reset%20my,vehicle%20if%20it%20was%20saved.

⁶ See, e.g., Lexus 2024 RX450h+/RX350 Multimedia Owner’s Manual at 51-52; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner’s Manual at 53-54; 2024 Lexus RX350 Owner’s Manual at 153, 160-63, 552-67 (accessed at <https://assets.sia.toyota.com/publications/en/om-s/OM0E216U/pdf/OM0E216U.pdf>); 2024 Toyota Grand Highlander Manual at 171, 173, 175-76, 538-51 (accessed at <https://assets.sia.toyota.com/publications/en/om-s/OM0E126U/pdf/OM0E126U.pdf>); https://support.toyota.com/s/article/Toyota-App-User-Profile-10737?language=en_US#:~:text=How%20do%20I%20reset%20my,vehicle%20if%20it%20was%20saved.

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		device requesting access to a user profile, and/or it receives input from the face identification system requesting access to a user profile.⁷ <i>See also</i> Row 1A.
1C	determine, by performing at least one of a verification process or an authentication process in response to the request, whether the request is authorized to access the user profile;	The '243 Accused Instrumentalities determine, by performing at least one of a verification process or an authentication process in response to the request, whether the request is authorized to access the user profile. For example, such processing may involve inputting a PIN on the vehicle display and/or conducting a facial recognition scan to determine if the request meets the necessary criteria to access the profile's associated data, settings, or permissions stored in memory.⁸ As an additional example, as explained in Row 1B, at least one of a verification or authentication process is associated with a request to access the user profile from a user's mobile device. This includes scenarios where a request associated with a mobile device paired with the vehicle and associated with user profile meets the necessary criteria to access the profile. For example, the

⁷ See, e.g., Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 49-56; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 52-58; <https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/>; <https://pressroom.lexus.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/>; https://support.toyota.com/s/article/What-are-the-key-features-of-a-User-Profile?language=en_US; <https://www.youtube.com/watch?app=desktop&v=1BS6mlpArFQ>; <https://support.lexus.com/s/article/How-do-I-set-up-my-ve-10876>; <https://lexusconnectedtechnologysupport.com/lexus/feature/User%20Profile/16da8ff0-3106-11ec-ab87-bdd1f9ee1090?model=ES%20350&year=2024>.

⁸ See, e.g., <https://www.youtube.com/watch?app=desktop&v=1BS6mlpArFQ>; <https://support.lexus.com/s/article/How-do-I-set-up-my-ve-10876>; <https://support.lexus.com/s/article/How-do-I-load-my-saved-profile>; <https://support.lexus.com/s/article/PIN-Popup>; https://support.toyota.com/s/article/PIN-Popups?language=en_US#:~:text=Only%20Answer-,Answer,PIN%20inside%20the%20Toyota%20app; https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US#:~:text=a%20User%20Profile?-,A%20User%20Profile%20is%20created%20when%20you%20register%20an%20account,is%20loaded%20to%20the%20vehicle; 2024 Toyota Grand Highlander Manual at 175-76; 2024 Lexus RX350 Owner's Manual at 162-63; Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 48-50; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 50-52.

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		process identifies the user's mobile device and/or evaluates the exchange of security information between the mobile device and the '243 Accused Instrumentalities. ⁹
1D	in response to determining that the request is authorized to access the user profile, determine one or more requested modifications to at least one of the one or more preferences; and	The '243 Accused Instrumentalities, in response to determining that the request is authorized to access the user profile, determine one or more requested modifications to at least one of the one or more preferences. For example, if the processor determines that the request to access the user profile is authorized, the processor receives input from the vehicle display, information associated with vehicle components and sensors, such as seat, steering wheel, and mirror positions, and/or buttons, to determine requested modifications to be made to one or more of the preferences saved to the user profile referenced in Row 1C.¹⁰ <i>See also</i> Rows 1B and 1E.
1E	in response to the one or more requested modifications, create an updated user profile at the vehicle, the updated user profile including one or more updated preferences based on the one or more requested modifications.	The '243 Accused Instrumentalities, in response to the one or more requested modifications, create an updated user profile at the vehicle, the updated user profile including one or more updated preferences based on the one or more requested modifications. For example, if the processor determines that a modification has been requested, the processor updates the user profile to reflect the updated

⁹ See, e.g., <https://www.youtube.com/watch?app=desktop&v=IBS6mlpArFQ>; <https://support.lexus.com/s/article/How-do-I-set-up-my-ve-10876>; https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US#:~:text=a%20User%20Profile?-,A%20User%20Profile%20is%20created%20when%20you%20register%20an%20account,is%20loaded%20to%20the%20vehicle; 2024 Toyota Grand Highlander Manual at 175-76; 2024 Lexus RX350 Owner's Manual at 162-63; Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 48-50, 93-100; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 50-52, 99-108.

¹⁰ See, e.g., https://support.toyota.com/s/article/Toyota-App-User-Profi-10737?language=en_US#:~:text=How%20do%20I%20reset%20my,vehicle%20if%20it%20was%20saved; Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 46, 51-52; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 48, 53-54; 2024 Lexus RX350 Owner's Manual at 160-63, 552-67; 2024 Toyota Grand Highlander Manual at 172-76, 538-51.

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		preferences, which are stored within the updated profile. A representative Toyota owner manual states that “[v]ehicle settings are automatically saved to the current profile when they are changed.” ¹¹
	Claim 2	
2A	The system of claim 1, wherein the one or more processors are to execute the machine-readable instructions to transmit the updated user profile from the vehicle to at least one of a mobile device, a cloud server, a remote server, or another vehicle,	The ’243 Accused Instrumentalities include the system of claim 1 as described above. The one or more processors of the ’243 Accused Instrumentalities execute machine-readable instructions to transmit the updated user profile from the vehicle to a cloud server and/or remote server. For example, a Toyota website states “Your vehicle regularly syncs information with the cloud to ensure your profile remains updated and secure.”¹² Representative Toyota owner manuals also state that “[c]hanging the vehicle settings automatically updates the profile saved at the cloud and a screen notifying the driver that the profile has been updated appears.”¹³
2B	wherein a local user profile including one or more local preferences is stored at the at least one of the mobile device, the cloud server, the remote server, or the other vehicle prior to transmission of the updated user profile to the at	Prior to transmission of the updated user profile by the processor of the ’243 Accused Instrumentalities, a local user profile including one or more local preferences is stored at the cloud server and/or remote server. For example, the cloud server and/or remote server stores a local user profile, which is accessible to other Toyota vehicles. A representative Toyota owner manual states that when a profile saved to the vehicle is deleted, the “[p]rofile is still stored on Toyota[/Lexus] cloud preserving all settings and personalization information.” ¹⁴ When the one or more processors of the ’243 Accused Instrumentalities determine that modifications have been made to the preferences of a

¹¹ See, e.g., https://support.toyota.com/s/article/Toyota-App-User-Profile-10737?language=en_US#:~:text=How%20do%20I%20reset%20my,vehicle%20if%20it%20was%20saved; Lexus 2024 RX450h+/RX350 Multimedia Owner’s Manual at 46; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner’s Manual at 48.

¹² See, e.g., https://support.toyota.com/s/article/PIN-Popups?language=en_US#:~:text=Only%20Answer-Answer,PIN%20inside%20the%20Toyota%20app; <https://support.lexus.com/s/article/PIN-Popup>.

¹³ See, e.g., Lexus 2024 RX450h+/RX350 Multimedia Owner’s Manual at 46-47; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner’s Manual at 48-49.

¹⁴ See, e.g., Lexus 2024 RX450h+/RX350 Multimedia Owner’s Manual at 53; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner’s Manual at 55.

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	least one of the mobile device, the cloud server, the remote server, or the other vehicle.	user profile, information associated with the updated user profile is transmitted to the cloud server and/or remote server and corresponding modifications are applied to the local user profile. ¹⁵ <i>See also</i> Claim 1, Row 1D; Row 2A.
	Claim 3	
3	The system of claim 2, wherein the one or more processors are to execute the machine-readable instructions to determine whether any conflicts exist between the updated preferences of the updated user profile and the local preferences of the local user profile.	The '243 Accused Instrumentalities include the system of claim 2 as described above. The one or more processors of the '243 Accused Instrumentalities execute machine-readable instructions to determine whether any conflicts exist between the updated preferences of the updated user profile and the local preferences of the local user profile. For example, changes made to user preferences in the vehicle are updated in the local profile stored in the cloud server and/or remote server by overwriting conflicting data associated with local preferences. ¹⁶
	Claim 4	
4	The system of claim 3, wherein, in response to determining that one or more conflicts exist between the updated preferences and the local preferences, the one or more processors are to execute the machine-readable instructions to	The '243 Accused Instrumentalities include the system of claim 3 as described above. In response to determining that one or more conflicts exist between the updated preferences and the local preferences, the one or more processors of the '243 Accused Instrumentalities execute machine-readable instructions to overwrite conflicted ones of the local preferences with corresponding conflicting ones of the updated preferences. For example, changes made to user preferences in the

¹⁵ See, e.g., Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 46-47; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 48-49.

¹⁶ See, e.g., Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 46-47; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 48-49.

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	overwrite conflicted ones of the local preferences with corresponding conflicting ones of the updated preferences.	vehicle are updated in the local profile stored in the cloud server and/or remote server by overwriting conflicting data associated with local preferences. ¹⁷
	Claim 5	
5	The system of claim 3, wherein, in response to determining that one or more conflicts exist between the updated preferences and the local preferences, the one or more processors are to execute the machine-readable instructions to perform a reconciliation process that allows selective determination of which conflicted ones of the local preferences should be overwritten by corresponding conflicting ones of the updated preferences.	The '243 Accused Instrumentalities include the system of claim 3 as described above. Upon information and belief, the one or more processors of the '243 Accused Instrumentalities, in response to determining that one or more conflicts exist between the updated preferences and the local preferences, execute the machine-readable instructions to perform a reconciliation process that allows selective determination of which conflicted ones of the local preferences should be overwritten by corresponding conflicting ones of the updated preferences. This claim element is a software limitation. AutoConnect may supplement its infringement contentions under Paragraph 3(a)(i) of the Court's Discovery Order for this claim element within 30 days after source code for all of the '243 Accused Instrumentalities is made available for inspection by Toyota pursuant to the Court's Orders.
	Claim 6	

¹⁷ See, e.g., <https://www.youtube.com/watch?v=IbS6mlpArFQ>; <https://support.lexus.com/s/article/How-do-I-set-up-my-ve-10876>; <https://support.lexus.com/s/article/How-do-I-load-my-saved-profile>; <https://support.lexus.com/s/article/PIN-Popup>; https://support.toyota.com/s/article/PIN-Popups?language=en_US#:~:text=Only%20Answer-,Answer,PIN%20inside%20the%20Toyota%20app; https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US#:~:text=a%20User%20Profile?-,A%20User%20Profile%20is%20created%20when%20you%20register%20an%20account,is%20loaded%20to%20the%20vehicle; 2024 Toyota Grand Highlander Manual at 175-76; 2024 Lexus RX350 Owner's Manual at 162-63; Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 48-50; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 50-52.

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6	The system of claim 1, wherein the one or more processors are to perform both the verification process and the authentication process, and wherein the one or more processors are to determine that the request is authorized to access the user profile in response to successfully verifying the request via the verification process and successfully authenticating the request via the authentication process.	The '243 Accused Instrumentalities include the system of claim 1 as described above. The one or more processors of the '243 Accused Instrumentalities perform both the verification process and the authentication process, and the one or more processors are to determine that the request is authorized to access the user profile in response to successfully verifying the request via the verification process and successfully authenticating the request via the authentication process. For example, the one or more processors determine, by performing a verification process in response to the request, whether the request is authorized to access the user profile. For example, such processing may involve inputting a PIN on the vehicle display, identifying a mobile device, and/or conducting a facial recognition scan to determine if the request meets the necessary criteria to access the profile's associated data, settings, or permissions stored in memory.¹⁸ As an additional example, as explained in Row 1B, the one or more processors perform an authentication process associated with a request to access the user profile from a user's mobile device. This includes scenarios where a request associated with a mobile device paired with the vehicle and associated with user profile meets the necessary criteria to access the profile. For example, the process evaluates the exchange of security information between the mobile device and the '243 Accused Instrumentalities.¹⁹
	Claim 7	
7	The system of claim 1, wherein the verification process includes at least one of biometric recognition,	The '243 Accused Instrumentalities include the system of claim 1 as described above.

¹⁹ See, e.g., <https://www.youtube.com/watch?app=desktop&v=IBS6mlpArFQ>; <https://support.lexus.com/s/article/How-do-I-set-up-my-ve-10876>; https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US#:~:text=a%20User%20Profile?-,A%20User%20Profile%20is%20created%20when%20you%20register%20an%20account,is%20loaded%20to%20the%20vehicle; 2024 Toyota Grand Highlander Manual at 175-76; 2024 Lexus RX350 Owner's Manual at 162-63; Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 48-50, 93-100; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 50-52, 99-108.

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	gesture recognition, facial recognition, or identification of a mobile device.	The one or more processors of the '243 Accused Instrumentalities perform a verification process that includes at least one of biometric recognition, gesture recognition, facial recognition, or identification of a mobile device. For example, the one or more processors perform a verification process described in Claim 6 that includes at least one of inputting a PIN on the vehicle display, identifying a mobile device, and/or conducting a facial recognition scan to determine if the request meets the necessary criteria to access the profile's associated data, settings, or permissions stored in memory.²⁰ <i>See also</i> Claim 6.
	Claim 8	
8	The system of claim 1, wherein the authentication process includes an exchange of security keys between the vehicle and a mobile device.	The '243 Accused Instrumentalities include the system of claim 1 as described above. The one or more processors of the '243 Accused Instrumentalities perform an authentication process that includes an exchange of security keys between the vehicle and a mobile device. For example, the one or more processors perform an authentication process described in Claim 6 that evaluates the exchange of security key information between the mobile device and the '243 Accused Instrumentalities. <i>See also</i> Claim 6.
	Claim 9	

²⁰ See, e.g., <https://www.youtube.com/watch?v=IBS6mlpArFQ>; <https://support.lexus.com/s/article/How-do-I-set-up-my-ve-10876>; <https://support.lexus.com/s/article/How-do-I-load-my-saved-profile>; <https://support.lexus.com/s/article/PIN-Popup>; [https://support.toyota.com/s/article/PIN-Popups?language=en_US#:~:text=Only%20Answer-,Answer,PIN%20inside%20the%20Toyota%20app](https://support.toyota.com/s/article/PIN-Popups?language=en_US#:~:text=Only%20Answer-,Answer,PIN%20inside%20the%20Toyota%20app;); https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US#:~:text=a%20User%20Profile?-,A%20User%20Profile%20is%20created%20when%20you%20register%20an%20account,is%20loaded%20to%20the%20vehicle; 2024 Toyota Grand Highlander Manual at 175-76; 2024 Lexus RX350 Owner's Manual at 162-63; Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 48-50; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 50-52.

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9	The system of claim 1, wherein the user profile is based on a template for the one or more preferences, and the updated user profile is created relative to the template.	The '243 Accused Instrumentalities include the system of claim 1 as described above. The user profile of the '243 Accused Instrumentalities is based on a template for the one or more preferences, and the updated user profile is created relative to the template. For example, the '243 Accused Instrumentalities include a database with a consistent structure so that settings and preferences can be associated with a user profile across different devices, systems, or vehicles. The template allows a user profile to be loaded in different vehicles.²¹ When modifications to the user preferences are requested, the updated user profile containing the updated user preferences is created relative to the template.
Claim 10		
10	The system of claim 9, wherein the template is a global standard template that is common among at least two vehicle manufacturers.	The '243 Accused Instrumentalities include the system of claim 9 as described above. The user profile of the '243 Accused Instrumentalities is based on a global standard template that is common among at least Toyota and Lexus. For example, Toyota vehicles and Lexus vehicles use common template settings for the user profile.²²
Claim 11		
11A	A method, comprising: receiving a request to access a user profile stored at a vehicle, the user	The '243 Accused Instrumentalities perform the method set forth in Rows 11A-11D. The '243 Accused Instrumentalities include a processor ²³ that executes machine-readable instructions to receive a request to access a user profile stored at a vehicle, the user profile including one or more preferences associated with functions or settings of the vehicle. For example, the '243 Accused Instrumentalities

²¹ See, e.g., Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 46-47; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 48-49.

²² See, e.g., Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 51-52; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 53-54.

²³ Any reference to a "processor" in these contentions includes one or more processors operating individually or in combination to perform the specified claim limitation.

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	profile including one or more preferences associated with functions or settings of the vehicle;	provide for saving preferences associated with functions or settings of the vehicle as part of a user profile that is stored at the vehicle.²⁴ Such settings include, for example, screen display settings, music settings, seat settings, notification settings, and preferred language settings.²⁵ The processor receives a request to access a user profile when, for example, it receives input from the vehicle display requesting access to a user profile, it receives a signal from a mobile device requesting access to a user profile, and/or it receives input from the face identification system requesting access to a user profile.²⁶ <i>See also</i> Claim 1, Row 1B.
11B	determining, by performing at least one of a verification process or an authentication process via	The '243 Accused Instrumentalities determine, by performing at least one of a verification process or an authentication process via one or more processors in response to the request, whether the request is authorized to access the user profile. For example, such processing may involve inputting a PIN on

²⁴ See, e.g., Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 46-47; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 48-49; <https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/>; <https://pressroom.lexus.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/>; https://support.toyota.com/s/article/Toyota-App-User-Profile-10737?language=en_US#:~:text=How%20do%20I%20reset%20my,vehicle%20if%20it%20was%20saved.

²⁵ See, e.g., Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 51-52; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 53-54; 2024 Lexus RX350 Owner's Manual at 153, 160-63, 552-67; 2024 Toyota Grand Highlander Manual at 171, 173, 175-76, 538-51; https://support.toyota.com/s/article/Toyota-App-User-Profile-10737?language=en_US#:~:text=How%20do%20I%20reset%20my,vehicle%20if%20it%20was%20saved.

²⁶ See, e.g., Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 49-56; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 52-58; <https://pressroom.toyota.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/>; <https://pressroom.lexus.com/toyota-motor-north-america-introduces-next-generation-multimedia-system-to-deliver-best-in-car-user-experience/>; https://support.toyota.com/s/article/What-are-the-key-features-of-a-User-Profile?language=en_US; <https://www.youtube.com/watch?v=1BS6mlpArFQ>; <https://support.lexus.com/s/article/How-do-I-set-up-my-ve-10876>; <https://lexusconnectedtechnologysupport.com/lexus/feature/User%20Profile/16da8ff0-3106-11ec-ab87-bdd1f9ee1090?model=ES%20350&year=2024>.

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one or more processors in response to the request, whether the request is authorized to access the user profile;	the vehicle display and/or conducting a facial recognition scan to determine if the request meets the necessary criteria to access the profile's associated data, settings, or permissions stored in memory. As an additional example, as explained in Row 11A, at least one of a verification or authentication process is associated with a request to access the user profile from a user's mobile device. This includes scenarios where a request associated with a mobile device paired with the vehicle and associated with user profile meets the necessary criteria to access the profile. For example, the process identifies a user's mobile device and/or evaluates the exchange of security information between the mobile device and the '243 Accused Instrumentalities.²⁷ <i>See also</i> Claim 1, Row 1C.
11C in response to determining that the request is authorized to access the user profile, determining, via the one or more processors, one or more requested modifications to at least one of the one or more preferences; and	The '243 Accused Instrumentalities, in response to determining that the request is authorized to access the user profile, determine, via the one or more processors, one or more requested modifications to at least one of the one or more preferences. For example, if the processor determines that the request to access the user profile is authorized, the processor receives input from the vehicle display, vehicle components and sensors, such as seat, steering wheel, and mirror position, and/or buttons, to determine requested modifications to be made to one or more of the preferences saved to the user profile referenced in Row 11A.²⁸

²⁷ See, e.g., <https://www.youtube.com/watch?app=desktop&v=IBS6mlpArFQ>; <https://support.lexus.com/s/article/How-do-I-set-up-my-ve-10876>; https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US#:~:text=a%20User%20Profile?-,A%20User%20Profile%20is%20created%20when%20you%20register%20an%20account,is%20loaded%20to%20the%20vehicle; 2024 Toyota Grand Highlander Manual at 175-76; 2024 Lexus RX350 Owner's Manual at 162-63; Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 48-50, 93-100; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 50-52, 99-108.

²⁸ See, e.g., https://support.toyota.com/s/article/Toyota-App-User-Profi-10737?language=en_US#:~:text=How%20do%20I%20reset%20my,vehicle%20if%20it%20was%20saved; Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 46, 51-52; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 48, 53-54; 2024 Lexus RX350 Owner's Manual at 160-63, 552-67; 2024 Toyota Grand Highlander Manual at 172-76, 538-51.

EXHIBIT K2 - U.S. PATENT 12,039,243 Infringement Claim Chart

U.S. Patent 12,039,243		Toyota Infringing Activities
		<i>See also</i> Claim 1, Rows 1B and 1E.
11D	in response to the one or more requested modifications, creating, via the one or more processors, an updated user profile at the vehicle, the updated user profile including one or more updated preferences based on the one or more requested modifications.	The '243 Accused Instrumentalities, in response to the one or more requested modifications, create, via the one or more processors, an updated user profile at the vehicle, the updated user profile including one or more updated preferences based on the one or more requested modifications. For example, if the processor determines that a modification has been requested, the processor updates the user profile to reflect the updated preferences, which are stored within the updated profile. A representative Toyota owner manual states that “[v]ehicle settings are automatically saved to the current profile when they are changed.”²⁹ <i>See also</i> Claim 1, Row 1E.
	Claim 12	
12A	The method of claim 11, further comprising transmitting the updated user profile from the vehicle to at least one of a mobile device, a cloud server, a remote server, or another vehicle,	The '243 Accused Instrumentalities perform the method of claim 11 as described above. The processor of the '243 Accused Instrumentalities executes machine-readable instructions to transmit the updated user profile from the vehicle to a cloud server and/or remote server. For example, a Toyota website states “Your vehicle regularly syncs information with the cloud to ensure your profile remains updated and secure.”³⁰ Representative Toyota owner manuals state that “[c]hanging the vehicle settings automatically updates the profile saved at the cloud and a screen notifying the driver that the profile has been updated appears.”³¹

²⁹ See, e.g., [³⁰ See, e.g., \[https://support.toyota.com/s/article/PIN-Popups?language=en_US#:~:text=Only%20Answer-Answer,PIN%20inside%20the%20Toyota%20app; https://support.lexus.com/s/article/PIN-Popup.\]\(https://support.toyota.com/s/article/PIN-Popups?language=en_US#:~:text=Only%20Answer-Answer,PIN%20inside%20the%20Toyota%20app; https://support.lexus.com/s/article/PIN-Popup.\)](https://support.toyota.com/s/article/Toyota-App-User-Profile-10737?language=en_US#:~:text=How%20do%20I%20reset%20my,vehicle%20if%20it%20was%20saved; Lexus 2024 RX450h+/RX350 Multimedia Owner’s Manual at 46; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner’s Manual at 48.</p>
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³¹ See, e.g., Lexus 2024 RX450h+/RX350 Multimedia Owner’s Manual at 46-47; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner’s Manual at 48-49.

EXHIBIT K2 - U.S. PATENT 12,039,243
Infringement Claim Chart

U.S. Patent 12,039,243		Toyota Infringing Activities
12B	wherein a local user profile including one or more local preferences is stored at the at least one of the mobile device, the cloud server, the remote server, or the other vehicle prior to transmission of the updated user profile to the at least one of the mobile device, the cloud server, the remote server, or the other vehicle.	Prior to transmission of the updated user profile by the processor of the '243 Accused Instrumentalities, a local user profile including one or more local preferences is stored at the cloud server and/or remote server. For example, the cloud server and/or remote server stores a local user profile, which is accessible to other Toyota vehicles. A representative Toyota owner manual states that when a profile saved to the vehicle is deleted, the “[p]rofile is still stored on Toyota[/Lexus] cloud preserving all settings and personalization information.”³² When the processor of the '243 Accused Instrumentalities determines that modifications have been made to the preferences of a user profile, information associated with the updated user profile is transmitted to the cloud server and/or remote server and corresponding modifications are applied to the local user profile.³³ <i>See also</i> Claim 1, Row 1D; Row 12A.
Claim 13		
13	The method of claim 12, further comprising determining whether any conflicts exist between the updated preferences of the updated user profile and the local preferences of the local user profile.	The '243 Accused Instrumentalities perform the method of claim 12 as described above. The processor of the '243 Accused Instrumentalities executes machine-readable instructions to determine whether any conflicts exist between the updated preferences of the updated user profile and the local preferences of the local user profile. For example, changes made to user preferences in the vehicle are updated in the local profile stored in the cloud server and/or remote server by overwriting conflicting data associated with local preferences.³⁴
Claim 14		

³² See, e.g., Lexus 2024 RX450h+/RX350 Multimedia Owner’s Manual at 53; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner’s Manual at 55.

³³ See, e.g., Lexus 2024 RX450h+/RX350 Multimedia Owner’s Manual at 46-47; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner’s Manual at 48-49.

³⁴ See, e.g., Lexus 2024 RX450h+/RX350 Multimedia Owner’s Manual at 46-47; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner’s Manual at 48-49.

EXHIBIT K2 - U.S. PATENT 12,039,243
Infringement Claim Chart

U.S. Patent 12,039,243		Toyota Infringing Activities
14	The method of claim 13, wherein, in response to determining that one or more conflicts exist between the updated preferences and the local preferences, the method further comprises overwriting conflicted ones of the local preferences with corresponding conflicting ones of the updated preferences.	The '243 Accused Instrumentalities perform the method of claim 13 as described above. In response to determining that one or more conflicts exist between the updated preferences and the local preferences, the processor of the '243 Accused Instrumentalities executes machine-readable instructions to overwrite conflicted ones of the local preferences with corresponding conflicting ones of the updated preferences. For example, changes made to user preferences in the vehicle are updated in the local profile stored in the cloud server and/or remote server by overwriting conflicting data associated with local preferences.³⁵
Claim 15		
15	The method of claim 13, wherein, in response to determining that one or more conflicts exist between the updated preferences and the local preferences, the method further comprises performing a reconciliation process that allows selective determination of which conflicted ones of the local preferences should be overwritten by corresponding conflicting ones of the updated preferences.	The '243 Accused Instrumentalities perform the method of claim 13 as described above. Upon information and belief, in response to determining that one or more conflicts exist between the updated preferences and the local preferences, the processor of the '243 Accused Instrumentalities executes machine-readable instructions to perform a reconciliation process that allows selective determination of which conflicted ones of the local preferences should be overwritten by corresponding conflicting ones of the updated preferences. This claim element is a software limitation. AutoConnect may supplement its infringement contentions under Paragraph 3(a)(i) of the Court's Discovery Order for this claim element within 30 days after source code for all of the '243 Accused Instrumentalities is made available for inspection by Toyota pursuant to the Court's Orders.
Claim 16		

³⁵ Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 46-47; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 48-49.

EXHIBIT K2 - U.S. PATENT 12,039,243

Infringement Claim Chart

U.S. Patent 12,039,243	Toyota Infringing Activities
16 The method of claim 11, further comprising performing both the verification process and the authentication process, wherein determining that the request is authorized to access the user profile includes successfully verifying the request via the verification process and successfully authenticating the request via the authentication process.	The '243 Accused Instrumentalities perform the method of claim 11 as described above. The processor of the '243 Accused Instrumentalities executes machine-readable instructions to perform both the verification process and the authentication process, wherein determining that the request is authorized to access the user profile includes successfully verifying the request via the verification process and successfully authenticating the request via the authentication process. For example, the processor determines, by performing a verification process in response to the request, whether the request is authorized to access the user profile. For example, such processing may involve inputting a PIN on the vehicle display, identifying a mobile device, and/or conducting a facial recognition scan to determine if the request meets the necessary criteria to access the profile's associated data, settings, or permissions stored in memory.³⁶ As an additional example, as explained in Row 1B, the processor performs an authentication process associated with a request to access the user profile from a user's mobile device. This includes scenarios where a request associated with a mobile device paired with the vehicle and associated with user profile meets the necessary criteria to access the profile. For example, the process evaluates the exchange of security information between the mobile device and the '243 Accused Instrumentalities.³⁷

³⁶ See, e.g., <https://www.youtube.com/watch?app=desktop&v=IBS6mlpArFQ>; <https://support.lexus.com/s/article/How-do-I-set-up-my-ve-10876>; <https://support.lexus.com/s/article/How-do-I-load-my-saved-profile>; <https://support.lexus.com/s/article/PIN-Popup>; [https://support.toyota.com/s/article/PIN-Popups?language=en_US#:~:text=Only%20Answer-,Answer,PIN%20inside%20the%20Toyota%20app](https://support.toyota.com/s/article/PIN-Popups?language=en_US#:~:text=Only%20Answer-,Answer,PIN%20inside%20the%20Toyota%20app;); https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US#:~:text=a%20User%20Profile?-A%20User%20Profile%20is%20created%20when%20you%20register%20an%20account,is%20loaded%20to%20the%20vehicle; 2024 Toyota Grand Highlander Manual at 175-76; 2024 Lexus RX350 Owner's Manual at 162-63; Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 48-50; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 50-52.

³⁷ See, e.g., <https://www.youtube.com/watch?app=desktop&v=IBS6mlpArFQ>; <https://support.lexus.com/s/article/How-do-I-set-up-my-ve-10876>; https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US#:~:text=a%20User%20Profile?-A%20User%20Profile%20is%20created%20when%20you%20register%20an%20account,is%20loaded%20to%20the%20vehicle; 2024 Toyota Grand Highlander Manual at 175-76; 2024 Lexus RX350 Owner's Manual at 162-63; Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 48-50, 93-100; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 50-52, 99-108.

EXHIBIT K2 - U.S. PATENT 12,039,243
Infringement Claim Chart

U.S. Patent 12,039,243		Toyota Infringing Activities
		<i>See also</i> Claim 6.
	Claim 17	
17	The method of claim 11, wherein the verification process includes at least one of biometric recognition, gesture recognition, facial recognition, or identification of a mobile device.	The '243 Accused Instrumentalities perform the method of claim 11 as described above. The processor of the '243 Accused Instrumentalities executes machine-readable instructions to perform a verification process that includes at least one of biometric recognition, gesture recognition, facial recognition, or identification of a mobile device. For example, the processor performs a verification process described in Claim 6 that includes at least one of inputting a PIN on the vehicle display, identifying a mobile device, and/or conducting a facial recognition scan to determine if the request meets the necessary criteria to access the profile's associated data, settings, or permissions stored in memory.³⁸ <i>See also</i> Claim 6, Claim 7, Claim 16.
	Claim 18	
18	The method of claim 11, wherein the authentication process includes an exchange of security keys	The '243 Accused Instrumentalities perform the method of claim 11 as described above. The processor of the '243 Accused Instrumentalities executes machine-readable instructions to perform an authentication process that includes an exchange of security keys between the vehicle and

³⁸ See, e.g., <https://www.youtube.com/watch?v=lBS6mlpArFQ>; <https://support.lexus.com/s/article/How-do-I-set-up-my-ve-10876>; <https://support.lexus.com/s/article/How-do-I-load-my-saved-profile>; <https://support.lexus.com/s/article/PIN-Popup>; [https://support.toyota.com/s/article/PIN-Popups?language=en_US#:~:text=Only%20Answer-,Answer,PIN%20inside%20the%20Toyota%20app](https://support.toyota.com/s/article/PIN-Popups?language=en_US#:~:text=Only%20Answer-,Answer,PIN%20inside%20the%20Toyota%20app;); https://support.toyota.com/s/article/Toyota-App-User-Profi-10735?language=en_US#:~:text=a%20User%20Profile?-,A%20User%20Profile%20is%20created%20when%20you%20register%20an%20account,is%20loaded%20to%20the%20vehicle; 2024 Toyota Grand Highlander Manual at 175-76; 2024 Lexus RX350 Owner's Manual at 162-63; Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 48-50; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 50-52.

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	between the vehicle and a mobile device.	a mobile device. For example, the processor performs an authentication process described in Claim 6 that evaluates the exchange of security key information between the mobile device and the '243 Accused Instrumentalities. <i>See also</i> Claim 6, Claim 8, Claim 16.
	Claim 19	
19	The method of claim 11, wherein the user profile is based on a template for the one or more preferences, and the updated user profile is created relative to the template.	The '243 Accused Instrumentalities perform the method of claim 11 as described above. The user profile of the '243 Accused Instrumentalities is based on a template for the one or more preferences, and the updated user profile is created relative to the template. For example, the '243 Accused Instrumentalities include a database with a consistent structure so that settings and preferences can be associated with a user profile across different devices, systems, or vehicles. The template allows a user profile to be loaded in different vehicles. ³⁹ When modifications to the user preferences are requested, the updated user profile containing the updated user preferences is created relative to the template. <i>See also</i> Claim 9.
	Claim 20	
20	The method of claim 19, wherein the template is a global standard template that is common among at least two vehicle manufacturers.	The '243 Accused Instrumentalities perform the method of claim 19 as described above.

³⁹ See, e.g., Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 46-47; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 48-49.

EXHIBIT K2 - U.S. PATENT 12,039,243
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U.S. Patent 12,039,243		Toyota Infringing Activities
		The user profile of the '243 Accused Instrumentalities is based on a global standard template that is common among at least Toyota and Lexus. For example, Toyota vehicles and Lexus vehicles use common template settings for the user profile.⁴⁰ <i>See also</i> Claim 10.

⁴⁰ See, e.g., Lexus 2024 RX450h+/RX350 Multimedia Owner's Manual at 51-52; 2024 Grand Highlander/Grand Highlander Hybrid Multimedia Owner's Manual at 53-54.